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Kawashima

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(54) **DEVICE ALIGNMENT IN INDUCTIVE POWER TRANSFER SYSTEMS**

(71) Applicant: **QUALCOMM Incorporated**, San Diego, CA (US)

(72) Inventor: **Kiyotaka Kawashima**, Tokyo (JP)

(73) Assignee: **QUALCOMM INCORPORATED**, San Diego, CA (US)

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See application file for complete search history.

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Primary Examiner — John Q Nguyen
Assistant Examiner — Michael Kerrigan
(74) *Attorney, Agent, or Firm* — Knobbe, Martens, Olson & Bear, LLP

(57) **ABSTRACT**

This disclosure provides systems, methods and apparatus for wireless power transfer and particularly wireless power transfer to remote systems such as electric vehicles. In one aspect, a wireless power receiver includes a first inductive element configured to receive wireless charging power from a transmitter. The wireless power receiver further includes a second inductive element, laterally separated from the first, configured to receive wireless charging power from the transmitter. The wireless power receiver further includes a position detector configured to determine a lateral position of the receiver relative to the transmitter based on characteristics of the first and second inductive elements.

28 Claims, 9 Drawing Sheets